Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Air Force

R-1 ITEM NOMENCLATURE

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force

PE 0604337F: Requirements Analysis and Maturation

DATE: February 2011

BA 4: Advanced Component Development & Prototypes (ACD&P)

COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost		
Total Program Element	36.391	34.339	24.217	-	24.217	16.312	16.018	15.816	16.058	Continuing	Continuing		
645349: Non-Space Systems Requirements Analysis & Maturation	29.509	27.534	18.373	-	18.373	11.627	11.357	11.178	11.338	Continuing	Continuing		
64A024: Space Systems Requirements Analysis & Maturation	6.882	6.805	5.844	-	5.844	4.685	4.661	4.638	4.720	Continuing	Continuing		

A. Mission Description and Budget Item Justification

The Requirements Analysis and Maturation (RAM) program addresses a critical need for decision-quality information prior to initiating a new acquisition program by executing integrated material studies and analyses across the Air Force (AF) enterprise (air, space, and cyber). A number of Department of Defense (DoD), Government Accountability Office, and industry studies point to a need for more disciplined, early-phase systems engineering and pre-systems acquisition planning to produce the detailed acquisition information that previously did not surface until after the initiation of a program. Activities funded by the RAM program element include: system and sub-system concept development, acquisition strategy development, modeling and simulation, cost analysis, pre-planning required for successful demonstration and validation of prototypes and systems-of-systems demonstrations, and costs associated with these activities, to include travel. This comprehensive approach supports acquisition courses of action to initiate high-confidence acquisition programs. Specific efforts are determined each year by requests submitted from AF Major Commands and subsequently prioritized and approved by the AF Development Planning Governance Structure. This effort is in Budget Activity 4, Advanced Component Development and Prototypes, since it involves system specific efforts that expedite technology transition from the laboratory to operational use.

B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	35.533	34.339	23.963	-	23.963
Current President's Budget	36.391	34.339	24.217	-	24.217
Total Adjustments	0.858	-	0.254	-	0.254
 Congressional General Reductions 		-			
 Congressional Directed Reductions 		-			
 Congressional Rescissions 	-0.148	-			
 Congressional Adds 		-			
 Congressional Directed Transfers 		-			
 Reprogrammings 	2.100	-			
SBIR/STTR Transfer	-1.094	-			
Other Adjustments	-	-	0.254	-	0.254

Air Force Page 1 of 15 R-1 Line Item #48

Exhibit R-2A, RDT&E Project Just	tification: PB	2012 Air Fo	orce						DATE : Febr	uary 2011	
APPROPRIATION/BUDGET ACTIV 3600: Research, Development, Test BA 4: Advanced Component Develo	t & Evaluation		D&P)	R-1 ITEM NOMENCLATURE PE 0604337F: Requirements Analysis and Maturation PROJECT 645349: No Analysis &				on-Space Systems Requirements Maturation			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
645349: Non-Space Systems Requirements Analysis & Maturation	29.509	27.534	18.373	-	18.373	11.627	11.357	11.178	11.338	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

R Accomplishments/Planned Programs (\$ in Millions)

The Non-Space Systems project is responsible for analyzing documented capability needs and requirements to identify potential material shortfalls and opportunities; devising candidate material solution options to address AF non-space capability needs and shortfalls; and conducting coordinated pre-systems acquisition planning activities that address requirements, schedule, cost, technology, and acquisition strategy for air and cyber efforts.

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B. Accomplishments/Planned Programs (\$ in Millions)			FY 2012	FY 2012	FY 2012
	FY 2010	FY 2011	Base	oco	Total
Title: Major Thrust 1	4.775	4.589	3.012	-	3.012
Description: Conduct long range capability analyses by analyzing documented warfighter capability needs and requirements to identify potential material shortfalls and opportunities.					
FY 2010 Accomplishments: Developed capability roadmaps, advanced concept studies and analyses, and derived technology needs required to realize future material solutions to warfighter capability needs.					
FY 2011 Plans: Develop capability roadmaps, advanced concept studies and analyses, and derive technology needs required to realize future material solutions to warfighter capability needs.					
FY 2012 Base Plans: Continue to develop capability roadmaps, advanced concept studies and analyses, and derive technology needs required to realize future material solutions to warfighter capability needs.					
FY 2012 OCO Plans:					
Title: Major Thrust 2	19.101	18.356	12.289	-	12.289
Description: Conduct concept development activities, including early-phase systems engineering, by devising candidate material solution options to address AF air and cyber capability needs and shortfalls.					
FY 2010 Accomplishments:					

Air Force Page 2 of 15 R-1 Line Item #48

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force			D	ATE: Febru	ary 2011	
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PF	ROJECT			
3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)	PE 0604337F: Requirements Analysis a Maturation		5349: Non- nalysis & Ma		ems Requii	rements
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Executed concept development activities, to include requirements supengineering, early concept characterization and technical descriptions technology assessments.						
FY 2011 Plans:						
Execute concept development activities, to include requirements supplengineering, early concept characterization and technical descriptions technology assessments.						
FY 2012 Base Plans: Continue to execute concept development activities, to include require phase systems engineering, early concept characterization and techn estimates, and technology assessments.						
FY 2012 OCO Plans:						
Title: Major Thrust 3		5.633	4.589	3.072	-	3.072
Description: Conduct coordinated pre-systems acquisition planning a schedule, cost, technology, and acquisition strategy.	activities that address requirements,					
FY 2010 Accomplishments: Performed pre-systems acquisition planning activities, to include concourses of action, and acquisition milestone documentation.	cept refinement, cost estimates, acquisition					
FY 2011 Plans: Perform pre-systems acquisition planning activities, to include concept courses of action, and acquisition milestone documentation.	ot refinement, cost estimates, acquisition					
FY 2012 Base Plans: Continue to perform pre-systems acquisition planning activities, to incacquisition courses of action, and acquisition milestone documentatio						
FY 2012 OCO Plans:						
Accom	plishments/Planned Programs Subtotals	29.509	27.534	18.373	-	18.373

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Air Force Page 3 of 15 R-1 Line Item #48

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
3600: Research, Development, Test & Evaluation, Air Force	PE 0604337F: Requirements Analysis and	645349: No	n-Space Systems Requirements
BA 4: Advanced Component Development & Prototypes (ACD&P)	Maturation	Analysis & I	Maturation

C. Other Program Funding Summary (\$ in Millions)

			FY 2012	FY 2012	FY 2012					Cost To	
<u>Line Item</u>	FY 2010	FY 2011	Base	OCO	<u>Total</u>	FY 2013	FY 2014	FY 2015	FY 2016	Complete	Total Cost
Activity Not Provided: Title Not	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Provided											

D. Acquisition Strategy

All contracts funded in this program element will be awarded using competitive procedures.

E. Performance Metrics

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

Air Force Page 4 of 15 R-1 Line Item #48

Exhibit R-3, RDT&E Pr	oject Cost	Analysis: PB 2012 A	Air Force							DATI	E: Februar	y 2011	
APPROPRIATION/BUD 3600: <i>Research, Develo</i> BA 4: <i>Advanced Compo</i>	opment, Tes	t & Evaluation, Air Fo		PE	ITEM NON 0604337F: uration			sis and		ECT 9: Non-Spa sis & Matur	•	ns Require	ments
Product Development	(\$ in Millio	ns)		FY	2011	FY 2 Ba		FY 2		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	-	-		-		-		-	0.000	0.000	0.00
Support (\$ in Millions)				FY:	2011	FY 2 Ba	-	FY 2		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Long range capability analyses	Various	TBD:TBD,	4.775	4.589	Dec 2010	3.012	Dec 2011	-		3.012	Continuing	Continuing	ТВІ
Concept development activities	Various	TBD:TBD,	19.101	18.356	Dec 2010	12.289	Feb 2012	-		12.289	Continuing	Continuing	TBE
Pre-systems acquisition planning	Various	TBD:TBD,	5.633	4.589	Dec 2010	3.072	Feb 2012	-		3.072	Continuing	Continuing	ТВІ
		Subtotal	29.509	27.534		18.373		-		18.373			
Test and Evaluation (\$	in Millions	s)		FY:	2011	FY 2 Ba	-	FY 2		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	-	-		-		-		-	0.000	0.000	0.000
Management Services	s (\$ in Millio	ons)		FY 2	2011	FY 2 Ba	-	FY 2		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	-	-		-		-		-	0.000	0.000	0.000
			Total Prior Years Cost	FY:	2011	FY 2 Ba	-	FY 2		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
		Project Cost Totals	29.509	27.534		18.373		-		18.373			

UNCLASSIFIED

Air Force Page 5 of 15 R-1 Line Item #48

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NCLATURE equirements Ana	alysis and	PROJECT 645349: No Analysis &	•	ace Systen	aa Daawiya	
		Allalysis &	Matura	•	is Require	ments
FY 2012 Base		_		Cost To Complete	Total Cost	Target Value of Contrac
						11 - 11

Page 6 of 15 Air Force R-1 Line Item #48

xhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force		DATE: February 2011
PPROPRIATION/BUDGET ACTIVITY 600: Research, Development, Test & Evaluation, Air Force A 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0604337F: Requirements Analysis and Maturation	PROJECT 645349: Non-Space Systems Requirements Analysis & Maturation

UNCLASSIFIED

Air Force Page 7 of 15 R-1 Line Item #48

PROJECT

645349: Non-Space Systems Requirements

Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force

DATE: February 2011

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE

3600: Research, Development, Test & Evaluation, Air Force PE 0604337F: Requirements Analysis and

BA 4: Advanced Component Development & Prototypes (ACD&P)

Maturation

Analysis & Maturation

Schedule Details

	St	E	nd	
Events	Quarter	Year	Quarter	Year
FY10 RAM Prioritization	2	2010	2	2011
FY11 RAM Prioritization	2	2011	2	2012
FY12 RAM Prioritization	2	2012	2	2013
FY10 RAM Portfolio Development Finalized	4	2010	4	2011
FY11 RAM Portfolio Development Finalized	4	2011	4	2012
FY12 RAM Portfolio Development Finalized	4	2012	4	2013
Studies & Analysis	1	2010	4	2012
Studies & Analysis Outbriefs	2	2010	4	2012

Exhibit R-2A, RDT&E Project Just	tification: PB	3 2012 Air Fo	orce						DATE: Febi	ruary 2011		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)					IOMENCLAT 7F: Requirer	PROJECT wirements Analysis and 64A024: Space Systems Requirements Analysis & Maturation						
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost	
64A024: Space Systems Requirements Analysis & Maturation	6.882	6.805	5.844	-	5.844	4.685	4.661	4.638	4.720	Continuing	Continuing	
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0			

A. Mission Description and Budget Item Justification

R Accomplishments/Planned Programs (\$ in Millions)

The Space Systems project is responsible for analyzing documented capability needs and requirements to identify potential material shortfalls and opportunities; devising candidate material solution options to address AF space capability needs and shortfalls; and conducting coordinated pre-systems acquisition planning activities that address requirements, schedule, cost, technology, and acquisition strategy for space efforts.

EV 2012 EV 2012 EV 2012

B. Accomplishments/Planned Programs (\$ in Millions)			FY 2012	FY 2012	FY 2012
	FY 2010	FY 2011	Base	OCO	Total
Title: Major Thrust 1	1.032	1.021	0.881	-	0.881
Description: Conduct long range capability analyses by analyzing documented warfighter capability needs and requirements to identify potential material shortfalls and opportunities.					
FY 2010 Accomplishments: Developed capability roadmaps, advanced concept studies and analyses, and derived technology needs required to realize future material solutions to warfighter capability needs.					
FY 2011 Plans: Develop capability roadmaps, advanced concept studies and analyses, and derive technology needs required to realize future material solutions to warfighter capability needs.					
FY 2012 Base Plans: Continue to develop capability roadmaps, advanced concept studies and analyses, and derive technology needs required to realize future material solutions to warfighter capability needs.					
FY 2012 OCO Plans:					
Title: Major Thrust 2	4.129	4.083	3.516	-	3.516
Description: Conduct concept development activities, including early-phase systems engineering, by devising candidate material solution options to address AF space capability needs and shortfalls.					
FY 2010 Accomplishments:					

Air Force Page 9 of 15 R-1 Line Item #48

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force			D	ATE: Febru	ary 2011		
APPROPRIATION/BUDGET ACTIVITY	PF	ROJECT					
3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)	PE 0604337F: Requirements Analysis a Maturation	and 64A024: Space Systems Requirem Analysis & Maturation				ents	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	
Executed concept development activities, to include requirements supengineering, early concept characterization and technical descriptions technology assessments.							
FY 2011 Plans:							
Execute concept development activities, to include requirements supplengineering, early concept characterization and technical descriptions technology assessments.							
FY 2012 Base Plans: Continue to execute concept development activities, to include require phase systems engineering, early concept characterization and techn estimates, and technology assessments.							
FY 2012 OCO Plans:							
Title: Major Thrust 3		1.721	1.701	1.447	-	1.447	
Description: Conduct coordinated pre-systems acquisition planning a schedule, cost, technology, and acquisition strategy.	activities that address requirements,						
FY 2010 Accomplishments: Performed pre-systems acquisition planning activities, to include concourses of action, and acquisition milestone documentation.	ept refinement, cost estimates, acquisition						
FY 2011 Plans: Perform pre-systems acquisition planning activities, to include concept courses of action, and acquisition milestone documentation.	t refinement, cost estimates, acquisition						
FY 2012 Base Plans: Continue to perform pre-systems acquisition planning activities, to inc acquisition courses of action, and acquisition milestone documentatio							
FY 2012 OCO Plans:							
Accom	plishments/Planned Programs Subtotals	6.882	6.805	5.844	-	5.844	

UNCLASSIFIED

Air Force Page 10 of 15 R-1 Line Item #48

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
3600: Research, Development, Test & Evaluation, Air Force	PE 0604337F: Requirements Analysis and	64A024: Sp	pace Systems Requirements
BA 4: Advanced Component Development & Prototypes (ACD&P)	Maturation	Analysis &	Maturation

C. Other Program Funding Summary (\$ in Millions)

			FY 2012	FY 2012	FY 2012					Cost To	
<u>Line Item</u>	FY 2010	FY 2011	Base	OCO	<u>Total</u>	FY 2013	FY 2014	FY 2015	FY 2016	Complete	Total Cost
Activity Not Provided: Title Not	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Provided											

D. Acquisition Strategy

All contracts funded in this program element will be awarded using competitive procedures.

E. Performance Metrics

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

Air Force Page 11 of 15 R-1 Line Item #48

Exhibit R-3, RDT&E Pr	oject Cost	Analysis: PB 2012 A	ir Force							DAT	E: Februar	y 2011	
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force					R-1 ITEM NOMENCLATURE PE 0604337F: Requirements Analysis and 64A024: Space Systems Requirements							ts	
BA 4: Advanced Compo	nent Devel	opment & Prototypes	(ACD&P)	I	uration	· 			Analys	sis & Matur	ation		
Product Development	(\$ in Millio	ns)	3)		2011	FY 2 Ba	-	FY 2		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
	<u> </u>	Subtotal	-	-		-		-		-	0.000	0.000	0.00
Support (\$ in Millions))			FY 2	2011	FY 2 Ba		FY 2		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
Long range capability analyses	Various	Aerospace Corp / URS Federal Support Services:El Segundo / Shrewsbury, CA	1.032	1.021	Dec 2010	0.881	Dec 2011	-		0.881	Continuing	Continuing	TBI
Concept development activities	Various	Aerospace Corp / URS Federal Support Services:El Segundo / Shrewsbury, CA	4.129	4.083	Dec 2010	3.516	Dec 2011	-		3.516	Continuing	Continuing	TBE
Pre-systems acquisition planning	Various	Aerospace Corp / URS Federal Support Services:El Segundo / Shrewsbury, CA	1.721	1.701	Dec 2010	1.447	Dec 2011	-		1.447	Continuing	Continuing	TBI
		Subtotal	6.882	6.805		5.844		-		5.844			
Test and Evaluation (\$	in Millions	s)		FY 2	2011	FY 2 Ba		FY 2		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	-	-		-		-		-	0.000	0.000	0.000
Management Services	s (\$ in Millic	ons)		FY 2	2011	FY 2 Ba	-	FY 2		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	-	-		-		-		_	0.000	0.000	0.000

UNCLASSIFIED

Page 12 of 15 R-1 Line Item #48

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force			DATE : Februar	y 2011	
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJEC	Т		
3600: Research, Development, Test & Evaluation, Air Force	PE 0604337F: Requirements Analysis ar	nd 64A024:	Space Systems Re	equirement	ts
BA 4: Advanced Component Development & Prototypes (ACD&P)	Maturation	Analysis	& Maturation		
Total Prior					Torget

To	Total Prior									Target
	Years			FY 2012	FY	2012	FY 2012	Cost To		Value of
	Cost	FY 2	2011	Base	0	CO	Total	Complete	Total Cost	Contract
Project Cost Totals	6.882	6.805		5.844	-		5.844			

Remarks	;
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Air Force Page 13 of 15 R-1 Line Item #48

Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0604337F: Requirements Analysis and Maturation	PROJECT 64A024: Space Systems Requirements Analysis & Maturation

UNCLASSIFIED

Air Force Page 14 of 15 R-1 Line Item #48

Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE

PROJECT 3600: Research, Development, Test & Evaluation, Air Force PE 0604337F: Requirements Analysis and

64A024: Space Systems Requirements BA 4: Advanced Component Development & Prototypes (ACD&P) Maturation Analysis & Maturation

Schedule Details

	Start		End		
Events	Quarter	Year	Quarter	Year	
FY11 RAM Prioritization	2	2010	2	2010	
FY12 RAM Prioritization	2	2011	2	2011	
FY13 RAM Prioritization	2	2012	2	2012	
FY11 RAM Portfolio Development Finalized	4	2010	4	2010	
FY12 RAM Portfolio Development Finalized	4	2011	4	2011	
FY13 RAM Portfolio Development Finalized	4	2012	4	2012	
Studies & Analyses	1	2011	4	2012	
Studies & Analyses Outbriefs	2	2011	4	2012	